New Hampshire Department of Agriculture,

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Sightings of New "Aliens"

Dr. John Weaver, State Survey Coordinator Division of Plant Industry NH Dept. of Agriculture, Markets & Food

One of the negative aspects of increased world trade is that it provides more opportunities for alien plant pests to get into our country. A lot of bugs hitch-hike into the US with imported products. When a new bug species arrives in our country it often finds that it has blundered into a kind of "bug wonderland" that is overflowing with wonderful things to eat. But the new bug gets an extra bonus: all of its natural enemies are gone, left behind in its homeland. It can now exploit the resources in its new environment and with its growth unchecked, have a population boom. It's all good for the bugs, but not for us as our crops, forest and other resources can suffer severely.

Some of the worst pests in history have resulted from the introduction of plant diseases, like Chestnut Blight and Dutch Elm Disease. Here are five of the newest, meanest, ugliest, most-wanted-dead-or-alive aliens in the US.

- 1) Sudden Oak Death: bacterial disease, established in California, dangerous, kills oaks and many other species of trees and shrubs, use caution if observed, do not provide transportation - this will accelerate its spread. Scientists do not have enough data yet to predict the impact of this plant disease; in a worst case scenario, it might cause a huge amount of destruction throughout the US.
- 2) Hemlock Woolly Adelgid: minute aphid-like insects that look like small tufts of cotton at the bases of needles, kills eastern Hemlock trees, established in southern New England, and in a couple of isolated sites in New Hampshire where attempts have been made to eradicate it. If this pest were to become established in New Hampshire, the results would be rather grim. In a worst case scenario it might decimate our native Hemlocks. and undoubtedly this would have a huge negative impact on our forests and their wildlife. Hopefully this pest will not be able to survive in the colder mountainous regions of the state and that the lady beetles that have been introduced to control it, by the NH Division of Forests & Lands will be successful.
- 3) Emerald Ash Borer: small metallic green beetle from China, kills Ash trees (*Fraxinus*) by tunneling through the cambium layer of the tree trunk or stem (does not affect Mt. Ash), established in Michigan. The impact of this pest would be the loss of White Ash trees in our temperate forests and several varieties of Ash trees that belong to private homeowners and nursery dealers. There are no known natural enemies to control this pest.
- 4) Leek Moth: small green caterpillar, tunnels into bulbs and leaves of leeks, onions, garlic and chives (Allium), presently not known to occur in the US, but is well established in Ottawa, Canada and will be here soon. This pest probably will become a problem for vegetable growers and may necessitate the implementation of new pesticide controls or new crop management strategies.
- 5) Lilly leaf beetle: bright red beetle, established in southern half of New Hampshire, eats Asian lilies (Lilum), but does not affect day lilies. The larvae (or grubs) have an odd behavior: each larva uses its frass (i.e. insect feces) to make a covering that conceals most of its body. This makes them look like miniature "swamp things." The NH Division of Plant Industry is doing research this summer with two natural enemies and it appears that they are not deterred by the little swamp things' defenses.

information on these and other alien plant pests, go to USDA's website: ceris.purdue.edu/napis/pests. Contact Dr. John Weaver, State Survey Coordinator, Division of Plant Industry, NH Dept. of Agriculture, Markets & Food, 271- 2561, jweaver@agr.state,nh.us, www.agriculture.nh.gov.

> Division of Plant Industry NH Dept. of Agriculture, Markets & Food PO Box 2042 Concord NH 03302-2042 271-3788 jweaver@agr.state.nh.us